sealift

MAGAZINE OF THE MILITARY SEALIFT COMMAND
OCTOBER 1974

MILITARY SEALIFT COMMAND

25

YEARS

Congratulations

THE SECRETARY OF THE NAVY
WASHINGTON

28 August 1974

Rear Admiral John D. Chase, USN
Commander, Military Sealift Command
Washington, D. C. 20390

Dear Admiral Chase:

For 25 years the Navy's Military Sealift Command has provided the vital logistical support necessary for the defense of freedom and the nation's efforts to maintain peace.

As the Department of Defense single manager for ocean transportation, I am very much aware of the contributions to U. S. national security made by the civilian and military members of the Command.

In peace and war, the Military Sealift Command has given its utmost continually, providing needed supplies to United States forces at remote corners of the earth and to Navy ships on every ocean.

It is with great pleasure that I congratulate you and members of your Command as you observe MSC's 25th anniversary. In addition to providing sealift support for U. S. Armed Forces stationed throughout the world, and those serving on ships in the world's oceans, your Command has distinguished itself by humanitarian endeavors--by transport of refugees, by delivery of supplies to victims of natural disaster, and by rescues at sea.

Please convey my congratulations and appreciation to each of those who are rightfully proud to be a member of the U. S. Navy's Military Sealift Command.

Sincerely,

J. William Middendorf II

J. William Middendorf II

CHIEF OF NAVAL OPERATIONS

21 August 1974

Dear Admiral Chase,

The anniversary of the Military Sealift Command (MSC) marks 25 years of unfailing service to the Navy as well as other components of the Department of Defense and the nation. Called on to perform transportation missions or fleet support operations, MSC has always performed with professionalism, speed and a "can do" attitude no matter what the task.

For the past quarter of a century, MSC has been faced with continually changing requirements and expanding roles in logistic support. Problems posed by the sudden outbreak of Korean hostilities, the long lifeline needed to move 96 per cent of supplies that went to Vietnam during that long and protracted war, and more recently the emergency needs of the fleet during the October war in the Mid-East, were all faced and conquered unfalteringly. The proven ability of professional civilian mariners to work side by side with Naval enlisted personnel and officers in everything from resupply operations in the Antarctic to underway replenishment of combatant ships, is a unique and valuable asset to the nation's seapower and security.

I take great pleasure in extending congratulations to every member of the MSC team for a job well done. The reputation which MSC has earned in the past 25 years is also assurance that the command will be ready and able to meet whatever demands the future may bring.

Sincerely,

J. L. HOLLOWAY III
Admiral, U.S. Navy

Rear Admiral John D. Chase
Commander
Military Sealift Command
Washington, D. C. 20390

Dear John

October 1 marks an important milestone as the Military Sealift Command observes its Twenty-Fifth Anniversary.

Far from being competitors in the transportation arena, our people and our units worldwide must work closely together to provide a strategic mobility system second to none in support of American and Allied forces. Our nation's diplomatic posture and military strategy are dependent on the surface and air capabilities our two commands represent.

It is heartening to note the spirit of partnership and cooperation that is evident between our people at all levels. On behalf of the men and women of the Military Airlift Command, I extend heartiest congratulations to you and the personnel of MSC upon your Twenty-Fifth Anniversary.

I am confident that our excellent working relationship will continue through the next twenty-five years.

Sincerely

PAUL K. CARLTON
General, USAF

Rear Admiral John D. Chase
Commander
Military Sealift Command
Washington, DC 20390

Military Traffic Management Command
Washington, D. C. 20315
16 September 1974

Dear John

It is my distinct pleasure to extend on behalf of the Military Traffic Management Command congratulations and best wishes to you and your command on the celebration of twenty-five years of loyal service to the Nation. The Military Sealift Command can be justifiably proud of the professional and constantly responsive support it has rendered our armed forces all over the world.

We look forward to a continuing close relationship with the Military Sealift Command knowing that the future holds even more and greater successes than an already distinguished past.

Sincerely,

[illegible], USA
Major General, USA
Commanding

Rear Admiral John D. Chase
Commander
Military Sealift Command
Washington, D. C. 20390

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MAGAZINE OF THE MILITARY SEALIFT COMMAND

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Former director of Army transportation discusses effects of the container on military logistics.

COVER: MSC marks 25 years of service to Department of Defense this month. Pictured is USNS Furman. Design by Hank Balloon.

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A Time to Look Ahead

By Rear Adm. John D. Chase

It is obviously an understatement to say that a great number of changes have taken place during the 25 years of Military Sealift Command's existence.

In this issue of Sealift magazine, many events of the past 25 years are reviewed. However, no single issue of the command magazine can hope to do justice to a quarter century of accomplishments by the men, women, and ships who make up this unique command.

MSC is unique, a point I'll come back to later. It also is a dynamic organization, one which changes its organizational structure and its operational assets to meet immediate demands while simultaneously building a contingency sealift base which will be available in an emergency.

Twenty-five years ago MSC was established and almost immediately became involved in the Berlin Airlift. Command ships shuttled military men to and from Europe, and provided the mountains of supplies and equipment flown into the isolated city by U.S. and Allied aircraft.

Even then, at the very beginning, it was evident that airlift and sealift were complementary elements of our nation's armed forces. That has not changed. It has, in fact, become even more evident. It was evident in the war in Korea, which began in the early 1950s and also deeply involved MSC. Again land, air and sea forces of the United States proved the value of teamwork by mobile fighting forces.

Advent of ocean-spanning jet aircraft since has had an impact upon MSC. The scores of troopships command crews once operated no longer exist. Troops and military families now move to and from overseas posts primarily by air.

At the time of the Berlin Airlift — an operation which captured the attention of the entire world — the United States had many thousands of merchant ships, holdovers from World War II. The U.S. Merchant Marine was strong, and commercial ships played an active part in supporting U.S. military policy.

That role still is fulfilled by the men and ships of the merchant marine. However, the composition of the U.S. merchant fleet has been greatly altered. Today, breakbulk ships, so common during and following World War II, are rapidly disappearing from the seas, and the U.S. tramp fleet is extremely limited in size.

New carriers are highly productive and fast — designed to take full advantage of substantial advancements in maritime and transportation technology. Today, the vernacular of those who are part of the maritime industry is sprinkled with terms such as LASH, Seabee, ro-ro, LNG, VLCC and OBO.

The container ship has become the workhorse of the U.S. commercial fleet. Barge carriers are entering the inventory in significant numbers. Roll-on, roll-off ships are another type of specialized sea carrier being built in increasing numbers.

Tankers continue to increase in size and payload, and other types of ships are being specifically designed to effectively perform a particular type of cargo movement.

The American shipbuilding industry now has a backlog of construction contracts valued at $3.5 billion, the largest in peacetime history. More than six million deadweight tons are on order — approximately 40 per cent of the size of the existing merchant fleet.

Because of larger size and greater speed, each of the new ships is the equivalent of three to eight of the conventional ships now in our merchant fleet. And they are manned by smaller crews — a result of greater automation. Ships which once carried 40-to-50-man crews now can be operated by 26 to 32 crewmen.

However, reduction in manpower requirements in no way minimizes the importance of the men who sail in ships. MSC civil marine personnel and merchant mariners in commercial ships today help write the history of the nation they serve, just as they have in the past.

Some idea of the impact MSC has had upon the transportation industry can be gained by reviewing the biographies of present leaders of the maritime industry. Many at one time or another were members of Military Sealift Command. Their stature in the maritime field is in a sense another testimonial to MSC accomplishment. Experience they gained by helping MSC meet its challenges equipped them to be leaders in the industry. Conversely, the great success MSC has had over the years is in a large part due to the experience and

expertise always available to the command from those in that same industry. In that group I would include both steamship company management personnel and those who represent the varied unions who long have been active partners on the Department of Defense sealift team.

I noted earlier that I consider MSC to be a unique organization. It is simultaneously a military organization with a military mission and an active participant in the commercial sea transportation business. In essence, MSC is the bridge which links the U.S. Navy with the U.S. Merchant Marine.

Serving as a link between a purely military organization and a strictly civilian field of endeavor can often be frustrating, sometimes difficult. But the very nature of our responsibility is at the same time an indicator of its importance. Through MSC, an economically oriented merchant marine can understand and work with the security oriented men and women who wear the uniforms of the military services.

As the eighth commander of MSC, I would not yet wish to single out one "most important" event which has taken place during my watch. In recent years, several programs started under previous commanders have begun to bear fruit. Typical is acquisition of the services of nine 25,000-ton tankers by a build and charter program. Another is the expanding MSC role in support of Navy fleets. Civilian mariners who man our ships have proven to be highly productive in an underway replenishment role, thus freeing Navy manpower and money for other use.

These are important. However, I have been particularly gratified by a less tangible accomplishment — one which is a direct tribute to all members of the command. Today, after the phaseout of U.S. troops in Vietnam, in a period of declining requirements and rapidly increasing costs, I think there is a new spirit of cooperation.

There is great understanding of mutual problems and common goals which enables federal regulatory agencies, maritime unions, maritime management, military forces, and the entire Department of Defense transportation industry to work together even more effectively than in past years.

This month MSC is 25 years old. As we celebrate our first quarter-century, we also should keep in mind another anniversary. Our parent organization, the U.S. Navy observes its 199th year in October.

In a sense, one might describe MSC as a "child" of the Navy. We were given life only 25 years ago but we now are a viable organization. Beginning with the Berlin Airlift, and through trial in Korea, Vietnam and other crises, we have earned a reputation of our own. But we remain a member of the Navy family — proud of the organization of which we are a part but proud also of our own accomplishments. At the same time, we are aware of the great contributions to our success which have been made by all elements of the maritime industry.

But, this is not a time only for looking back, for review of where we have been and what we have done. It is rather a time to look ahead, to face new challenges and to develop new techniques, new programs, new assets, a new spirit which will enable us to add to our history and our accomplishments. Our great challenge today is to continue to be a responsive sealift organization, while reducing costs despite the pressures of inflation.

MSC always has reflected the expertise, ability, and dedicated spirit of its people. The "can-do" attitude of past years will continue to be evident in the future. Thus, as MSC commander, I would like to once again express my admiration and gratitude to all of those who have been or are now members of the Navy's sealift command. To those who will succeed present command members, I would express the hope that the next 25 years will bring as much success, as great rewards and a comparable sense of satisfaction that comes from a job well done. ⚓

Remembering

Military Sealift Command began when Secretary of Defense Louis Johnson issued a directive on Aug. 2, 1949 creating a new agency to provide "under one authority" the sea transportation for Department of Defense personnel and cargo.

Prior to the formation of MSC and throughout World War II, the Army and Navy operated individual shipping services. In fact, during that war four separate groups controlled merchant shipping — the Army Transport Service, Naval Transportation Service, War Shipping Administration, and the Fleet Service Forces.

Her bow gates open wide, LST 901 takes on Vietnamese refugees in 1954 at Haiphong.

In the latter years of World War II, military planners recognized the need for a single manager for ocean transportation. On Oct. 1, 1949 the sealift command was officially established with Vice Adm. William M. Callaghan as the first commander.

In March 1950 inter-service transfer of ships began. Seventy-two vessels were turned over to MSC from the Army. On July 1, 1950, 33 more ships were transferred. Completing the changeover, 10 Army ships operating in Alaskan waters were turned over in November 1950.

If the name Military Sealift Command does not square with memories of those on board at that time, it should be pointed out that the new organization was known as Military Sea Transportation Service until August 1970, when it became Military Sealift Command.

As the bulk of the Army's transports were being delivered to the Navy organization, fighting broke out in Korea and MSC found itself in business in a big way.

MSC began expanding as soon as hostilities started. Urgent calls went out to the maritime industry for every available ship. On July 1, 1950, MSC had six ships chartered from private operators. At the peak of the Korean War the number increased to 335.

Simultaneously, MSC asked the Maritime Administration to take 130 ships out of mothballs and to turn them over to commercial operators who would operate them for MSC under government contracts.

At Inchon, Korea, cargo ships unloaded supplies around the clock. A figurative bridge of ships spanned the Pacific during the three years of hostilities. Some, like the transport USNS (United States Naval Ship) Walker, set impressive records. During the first year of the Korean War, Walker traveled more than 87,000 nautical miles.

In December 1950, 193 government owned and MSC chartered ships helped evacuate 105,000 soldiers, 91,000 civilians, 17,500 vehicles and 350,000 tons of supplies from Hungnam, Korea. The chartered commercial ship SS Meredith Victory, built to accommodate only 12 passengers, carried 14,000 Korean civilians from Hungnam only hours ahead of an advancing enemy.

While resupplying U.N. Forces in Korea, MSC was conducting business-as-usual elsewhere in the world, transporting military families and European refugees, lifting military assistance cargoes, and supporting other military activities. During August of 1952, the 20-millionth-ton of cargo sealifted to Korea was unloaded at Pusan from USNS Gammon. In all, MSC lifted more than 54 million measurement tons of cargo, 5 million troops and passengers, and 22 million long tons of petroleum products to, from, and within the Far East area.

Following the Korean conflict the exchange of prisoners of war began. Thousands of enemy prisoners were moved from island prison camps south of Korea to neutral areas and placed aboard MSC ships. Eight MSC troop transports also began bringing home almost 3,000 Americans who had been prisoners of war.

The decade continued with MSC making unusual lifts on its government owned and chartered ships. In 1952, to combat a possible malaria epidemic in Guam, 1,500 mosquito eating fish were carried there aboard USNS Gen. D.D. Aultman.

Four huge equestrian statues presented to the United States by Italy were brought to Norfolk aboard an MSC chartered ship, SS Rice Victory. The statues now overlook the Potomac River and the Lincoln Memorial from Washington's Memorial Bridge.

In November 1953, USNS Rose arrived in New York with three adult polio patients, brought from Germany in iron lungs. At Bremerhaven they were carried aboard the transport, and transferred from iron lungs to respirators welded to the deck of the sick bay.

The Korean war ended in 1953. The reduction in military lifts was followed by a similar cutback in the size of the MSC fleet. At the peak of the conflict MSC controlled 602 ships and craft. By June of 1954 the number had been reduced to 295.

Between the Korean and Vietnam conflicts, Military Sealift Command ships continued to deliver cargo for the entire Department of Defense.

Highlights of 1954 included Operation Reclaim in which more than 14,500 Chinese prisoners of war were moved by MSC transports from Korea to Formosa.

Passage to Freedom, the evacuation of thousands of Vietnamese fleeing northern Vietnam, also began in 1954.

In 1955, the greatest logistical force ever to support operations in the far north was launched. The 118 ships involved in Arctic Operations 1955 included 59 cargo ships, 11 tankers, 4 passenger vessels, 10 icebreakers, and 34 other craft. These ships supplied the Distant Early Warning Line network which had been established in the Arctic.

In 1955, MSC also conducted the largest two-way peacetime transocean troop movement in history. It was called Operation Gyroscope, and involved sealift of the Army's 10th Infantry Division. By November of 1955, more than 36,000 troops, 8,000 wives, sons and daughters, and 8,500 tons of household goods had been lifted by MSC between New York and Bremerhaven.

A total of 117 ships and 16,000 men took part in Arctic Operations 1956 which began in May. The Antarctic Operation Deep Freeze was not neglected as USNS Greenville Victory delivered 11,000 tons of supplies to Little America and McMurdo Sound.

Following the Hungarian revolt of 1957 MSC troop transports helped move 21,500 Hungarian exiles from Bremerhaven to New York. Acting under the Refugee Relief Act of 1953, MSC reinforced the medical departments on four of its transports with additional doctors, nurses and hospital corpsmen.

In 1957, USNS Langfitt and USNS Taylor supported the Intergovernmental Committee for European Migration program by transporting migrants to Melbourne, Australia. The program involved a mass immigration on a planned basis — distinguishing it from population shifts of the past. Langfitt lifted 1,252 Greeks from Piraeus and Taylor, 1,277 Hungarians from Marseilles.

In July 1958, a crisis erupted in Lebanon with that country requesting U.S. military assistance. MSC was tasked to provide transports, cargo ships, and tankers to supply U.S. forces in the Mediterranean.

Again, the situation required that U.S. flag

commercial ships be called upon to augment the MSC government owned fleet. Shipping companies juggled their schedules and offered their ships. A week and a half after Marines went ashore at Beirut, the commercial operators had provided 13 cargo ships and 15 tankers.

The year 1958 brought a larger MSC role in oceanographic research. Three Victory-type ships were taken from the National Defense Reserve Fleet and renamed USNS Bowditch, Dutton, and Michelson. They were converted for use as survey ships and for gathering oceanographic data. The salvage tug USNS Chain soon joined this group and by year's end the former seaplane tender USS San Carlos became the USNS Gibbs.

Military Sealift Command was 12 years old in 1961. Two MSC transports, USNS Eltinge and Blatchford, were activated in February of that year, to support United Nations emergency operations in the Congo. Troop moves by sea were then the routine. More than 404,000 troops and family members were carried by 16 transports during that year. Almost 11 million tons of everything from ammunition to zucchini were carried by MSC controlled ships. MSC controlled tankers delivered more than 15.9 million long tons of petroleum to fulfill worldwide Defense requirements.

Military Sealift Command further expanded its special projects fleet in 1962 and 1963. USNS Kingsport was used as a communications relay station between Lagos, Nigeria and Washington, D.C. On one occasion the prime minister of Nigeria, aboard Kingsport, talked to President John Kennedy via satellite. Three more Victory ships were obtained from the Maritime Administration and renamed USNS Provo, Phoenix and Cheyenne. All were placed under operational control of MSC, Far East.

USNS Range Recoverer supported Astronaut Gordon Cooper's orbital flight, while USNS Gilliss, Gibbs and Mission Capistrano searched for the nuclear submarine Thresher which had been lost April 9, 1962.

The annual Arctic resupply continued as usual, but after 2½ years with the United Nations Congo Operation, USNS Blatchford returned to the States on Aug. 12, 1963. She had sailed 174,014 miles — roughly equivalent to seven times around the mid-section of the earth.

On Oct. 1, 1964 MSC celebrated 15 years service of Department of Defense operations. Military Sealift Command, Atlantic dispatched the transport USNS Upshur to riot-torn Panama to evacuate military families and the cargo ship USNS New Bedford completed a mission as a support vessel for the Air Force's Texas Tower radar warning system. The system was being phased out, thus ending one chapter in MSC special project operations.

On Jan. 24, 1964 at Bremerhaven, USNS Comet set a record for roll-off discharge when 386 wheeled and tracked vehicles were put on the pier in only 55 minutes. Other 1964 highlights included delivery of fresh water to the Guantanamo Bay Naval Base by two MSC tankers. The Castro regime had cut off the fresh water supply, necessitating the water-lift until a desalinization plant could begin operating.

On May 2, 1964, USNS Card was damaged while docked in Saigon, South Vietnam. Saboteurs blew a hole in the 9,800-ton vessel below the waterline. Fortunately, none of the ship's 74-man civilian crew were injured.

The assault support capability of MSC, Atlantic was tested during amphibious exercise Steel Pike I in October and November of 1964. Seven MSC nucleus ships and 10 commercially chartered vessels helped the Atlantic Fleet Amphibious Force transport a marine expeditionary force to the beaches of Spain.

Another record was set by USNS Towle when, in support of Operation Deep Freeze in the Antarctic, she discharged 6,404 measurement tons at McMurdo Station in 4 days, 4 hours, and 13 minutes.

MSC's capability to expand in time of war or national emergency was put to the test again in the mid-1960s when the war in Vietnam was escalated.

In early August 1965, the 1st Cavalry Division was deployed to Vietnam. USS Croatan, an aircraft ferry cargo ship, loaded the first of the division's helicopters in Mobile on August 9. Loading the aircraft ferries USNS Card, also in Mobile, and USNS Kula Gulf in Mayport, Fla. followed. Six troop transports were pulled off their New York-Bremerhaven shuttle and sent to the Far East taking aboard 15,000 troops at Charleston, S.C., and Savannah, Ga.

U.S. Coast Guard Squadron One's 17 river patrol boats were sealifted to Vietnam aboard MSC chartered ships, and the MSC transport USNS Mann deployed the first segment of a 2,000-man Republic of Korea unit to Vietnam.

The build-up of U.S. Armed Forces in Southeast Asia presented a logistics problem. The Republic of Vietnam only had one developed port, Saigon, 42

miles up-river from the sea. The country had no tugs or barges since the sampans and junks handled coastal lifts. MSC chartered, loaded, and sent across the Pacific hundreds of ships carrying items essential for military operations. These ships were forced to drop anchor off Vietnam, in Philippine harbors, and some as far away as Guam. Others were held at home, their hatches closed, crews standing by, waiting for an open port.

As congestion increased, Department of Defense directed MSC to move cargo by shallow-draft tugs and barges to the beaches and along the coast, a responsibility formerly handled by the Army.

MSC contracted with the Alaska Barge and Transport Co. (AB&T) to provide needed service. AB&T already had experience in over-the-beach cargo deliveries to Dew Line sites in Alaska, and employed highly-skilled professional towboatmen, crane and bulldozer operators, beachmasters, and mechanics.

Alaska Barge and Transport's association with the Military Sealift Command actually got under way in March 1966 when 17 tugs and 34 barges departed San Francisco for Vietnam.

At the height of AB&T operations in Vietnam, 1,800 people were employed. The company provided stevedoring, lighterage, trucking, liberty boat service, coastal towing, equipment repair, warehousing and delivery in the ports of DaNang, Qui Nhon, Nah Trang, Cam Ranh Bay, Phan Rang, and Vung Tau. The company was a fully structured marine, terminal and warehousing organization with its own operations, administrative, and fiscal control offices.

MSC statistics for 1966 show that nearly 9.9 million measurement tons of dry cargo were lifted to the Republic of Vietnam, MSC worldwide cargo lift was 23.6 million measurement tons. USNS Patch and Darby completed the longest troop-lift in military history — carrying troops from Boston more than 12,500 miles to Vietnam, halfway around the world.

On the other side of the globe, searchers aboard USNS Mizar located an H-bomb lost after two Air Force aircraft collided over the Mediterranean Sea near Palomares, Spain.

MSC kept racking up plaudits during the next three years when it noted its 20th anniversary. For example, SS Sept Iles, under charter to MSC, side-launched a landing craft utility boat from her deck after lifting six LCUs to Charleston from St. Nazaire, France. In March 1967, USS Chase County, under MSC operational control, rescued 29 fishermen from a grounded Japanese craft on Bombay reef. In April, MSC completed the sealift portion of Operation Freloc, withdrawal of U.S. military equipment from France. More than 660,000 tons of ammunition, rolling stock, and other material were sealifted.

The gas turbine ship Admiral William M. Callaghan, (named for the first MSC commander) was launched October 1967 at Sun Shipbuilding and Dry Dock Co., Chester, Pa. The roll-on, roll-off ship is still under charter. Callaghan completed her maiden voyage to Bremerhaven in January 1968. That March she sailed from Delaware to England in 5 days, 11 hours and 45 minutes, at a record speed of 25.59 knots.

In September 1968 the seventeenth 25,000-gallon container of contaminated water was loaded aboard USNS Marine Fiddler and sealifted to Charleston. A B-52 bomber carrying atomic weapons crashed while landing at Thule, Greenland, contaminating the water.

In late 1968 the lost submarine USS Scorpion was located by USNS Mizar and Vanguard, Redstone, Mercury and Huntsville provided communication facilities for the Apollo 8 crew during their flight around the moon.

The 20th anniversary year — 1969 — was one of MSC's most productive. Command ships delivered more than 30.6 million measurement tons of cargo. Earnings totalled $1.28 billion, the third consecutive year in which MSC earnings surpassed a billion dollars. Use of containers was growing with 3.9 million measurement tons of container cargo being delivered by the sealift command.

During 1969, the command installed a computer system to improve its management of ocean transportation assets. It also developed plans for a multi-purpose ship designed to meet contingency demands of the military services.

MSC's special project fleet expanded to 45 vessels, supporting oceanographic research, space exploration and other projects carried on by 13 sponsoring agencies. Four new special project ships were added that year. USNS Mizar located and photographed the miniature research submarine Alvin which had sunk off the New England coast in early 1969.

In an anniversary message to the command, Vice Adm. Lawson P. Ramage summed up 20 years of service. "By doing our job for the past 20 years, we have served as architects of a lasting peace. By performing our daily tasks we have helped man reach the moon, and we have benefited our fellow

man by our support of studies of the ocean's mysteries."

Early in January 1970, MSC began to phase down troop transport operations in the Far East. All but three ships were turned over to Maritime Administration for anchor in the National Defense Reserve Fleets.

USNS Maumee, a 26,875-deadweight-ton tanker, supplied a million gallons of petroleum for McMurdo Station in Antarctica. The 620-foot tanker in a single voyage carried as much fuel as six smaller tankers.

The last of the government-owned World War II vintage cargo ships used by the command for delivery of supplies and ammunition to Vietnam was returned to the States for lay-up in the James River National Defense Reserve Fleet. At the height of operations in Vietnam, the command had used 172 of these ships. Forty private shipping lines operated them under government contract. Between mid-1965 and mid-1970, these General Agency Agreement ships under MSC control carried 8.9 million measurement tons of cargo on about 1,800 voyages to Vietnam.

In September 1970, Mrs. Arthur R. Gralla christened the first of four Falcon tankers being built by private owners for MSC charter. Falcon Lady was the first to slide down the ways. She and her sister ships, Falcon Duchess, Countess and Princess, have an overall length of 672 feet, a beam of 89 feet and a cargo capacity of 300,000 barrels. The ships were built by the Ingalls East Division of Litton Industries for Falcon Tankers, Inc. and now are bareboat chartered by MSC and operated by Civil Service crews.

When MSC closed the books for Fiscal Year 1970, they showed that the MSC controlled fleet delivered more than 26.5 million measurement tons of dry cargo and 26.9 million long tons of petroleum products. With earnings of more than $1.07 billion for that fiscal year, the command paid commercial companies $812 million for services they provided.

Early in 1971, the command solicited the maritime industry for offers to build nine small tankers for long term charter. A consortium of three commercial companies won the award. Construction cost of the ships, all funded by private investors, totaled approximately $146 million. Four tankers were built by Todd Shipyards Corp., San Pedro, Calif., and the remaining five were constructed by Bath Iron Works, Bath, Me. All weigh 25,000 deadweight tons, have a draft of 32½ feet, and a cargo capacity of 220,000 barrels. Two are already in operation with all nine to be operating in early 1975.

Near the end of the Vietnam War, Project Enhance was instituted. This Department of Defense program was designed to upgrade equipment used by the military forces of the Republic of Vietnam as part of the Vietnamization program. Enhance Plus was an accelerated phase of that program to provide equipment and supplies needed before the ceasefire. Ships delivered more than 70 per cent of the 150,000 tons of material.

Then came Roll-up, essentially Enhance in reverse. Following the ceasefire, 194,000 measurement tons of United States and Korean equipment had to be returned within 60 days. The challenge was fulfilled by use of commercial ships such as Seatrain Lines Florida, Puerto Rico, Maryland, Carolina, Ohio, Maine, and Washington.

Lowered requirements again caused a reduction in numbers of ships in the MSC controlled fleet in

Launched by USNS Greenville Victory, Army landing craft move to the beach at Kulusuk, Greenland during supply operations.

1971. However, three new research ships, including USNS Hayes, the command's first catamaran, were added to the MSC special project fleet.

Crew of the SS Transglobe, under charter to MSC, rescued 17 survivors from a Formosan fishing vessel after Typhoon Elaine had forced them to abandon ship, and the crew of USNS LST 488 rescued nine Thai fishermen from their sinking ship in the South China Sea.

MSC also chartered SS American Courier in 1971 for a project known as Home Run. The ship returned from the Far East with a $6.2 million cargo of surplus military supplies and equipment destined for use by several volunteer organizations.

MSC also was involved in the spaceflight program. USNS Point Barrow, a specially configured former dock landing ship, moved the Skylab orbital workshop and associated systems from Seal Beach, Calif. to Port Canaveral, Fla. A year later, MSC played an even greater role when USNS Vanguard was stationed off the South American coast to provide communications between the crew of the orbiting laboratory and earth-based scientists.

The helicopter repair ship Corpus Christi Bay returned from Vietnam after seven years of service. Her maintenance and a crew of aviation specialists had handled more than 300,000 helicopter components saving both time and money.

MSC again was cited in 1973 for its support of the Navy's cost reduction program. Savings by the entire command totaled more than $3.2 million, well above the goal of $1.8 million.

The Distinguished Civilian Service Award, highest honor the Secretary of the Navy can bestow on a civilian, was presented to Capt. Lawrence O. Nasset for his outstanding performance as skipper of the civilian crewed USNS Taluga. Chief Engineer Donald K. McKee of the same ship received the Navy Superior Service Civilian Award.

Navy also revitalized the Merchant Marine Naval Reserve program whereby deck, engineering and communications officers serving aboard commercial ships operated by U.S. companies may be commissioned in the Naval Reserve and take part in an organized training program. MSC Civil Service officers also can receive reserve commissions. As a member of the CNO Staff, the MSC commander is responsible for this program.

Two MSC ships started off 1974 by winning top national awards. USNS Hayes earned the National Safety Council and American Institute of Merchant Shipping special sea rescue award for rescuing 36 survivors from the North Atlantic after they had abandoned a burning Greek freighter. Certificates and a pennant were presented to the master and crew of the oceanographic vessel August 16 at ceremonies in Baltimore.

The oiler USNS Taluga, MSC's first fleet support ship, received a 1974 National Defense Transportation Assn. unit award for outstanding performance by a Navy unit. Taluga was selected for her operations with the Seventh Fleet in the Pacific and Indian Ocean during 1973. The award was presented in September at NDTA's annual convention in Las Vegas.

Commenting earlier, Admiral Chase said: "This year we will observe our 25th anniversary. Despite our considerable reputation as a 'can-do' organization, we can not rest on our laurels. We must continue to improve our operations, our relationships with the unions and maritime management, and our service to the military services." ⚓

Military Transportation

Promise and Problems

By Brig. Gen. Garland A. Ludy

Not since the internal combustion engine replaced the horse as the world's principal overland mover, and steam and diesel power replaced sails on ships, have the world's transportation systems undergone changes like those caused by the widespread introduction of cargo containers and modern container ships.

This change, or revolution, as many refer to it, is demanding extensive revisions in logistic planning by both military and civilian transport activities.

I will not dwell on the benefits of containerization to transportation and logistics. Instead I will direct my thoughts primarily to the problems containerization and modern non-self-sustaining container ships pose to the military logistician and the efforts being made to overcome those problems.

Most problems that presently concern us are related to the transport portion of the overall logistical picture; therefore, an examination of a total logistical system and positive identification of the transport segment are essential.

Logistical support of a deployed military force may be simplistically compared to the human body. If we look at the brain as the source of ideas and the arms and legs as the means of accomplishing those ideas through physical action we find the nervous system and spinal column are the conveyors of thoughts into action by the body parts involved.

By substituting the vast industrial and technological capabilities of the United States for the human brain in this analogy, and the nation's armed forces for the arms and legs that employ these resources in the national interest, the essential role of military transportation is obvious. Transportation is the spinal column of the logistical system.

Transportation is of significantly greater importance in military logistics to the United States than other 20th century world powers due to the combination of geography and good fortune that has spared our country conflict within its own borders. To fight the wars of this century, we have

SL-7 container ships like Sea-Land Galloway have almost 11 times the productivity of a C-2 cargo ship.

transported our forces and their supplies across the oceans of the world. Only through this ability to transport millions of men and monumental amounts of supplies and equipment has the United States staved off aggressors who might have reached our shores. This capability also has enabled us to assist our allies in defense of their homelands, again without endangering our cities and people.

From World War I through the Vietnam conflict, transportation — our logistical backbone — remained basically unchanged except for the advent of air transport in World War II and the continuing increase in the speed, capacity and responsiveness of airlift. This 50-year period was marked by an abundance of wartime merchant shipping, either through long leadtime for mobilization and ship construction, as experienced in both world wars, or the use of "mothballed" shipping assets in the Korean and Vietnam conflicts.

The ships employed in these wars, whether Hog Islanders of World War I or the Liberty and Victory ships of World War II, varied little in capabilities or method of operation. They were versatile and could load and discharge most of their cargo with on-board cargo gear. Their large holds could accommodate outsized equipment which could be discharged by shoreside or floating heavy-lift cranes. In short, these breakbulk ships were ideal for support of military forces and readily met requirements of our peacetime commerce when hostilities ceased. Few breakbulk ships still sail the seas.

This era of plenty in versatile ocean shipping available to support United States overseas forces in contingencies or major wars is rapidly drawing to a close. The once formidable National Defense Reserve Fleet (NDRF) has been reduced from several thousand ships following World War II to 130 Victory ships suitable for seaiift purposes. This number of ships, given adequate leadtime for fitting out and crewing, is about what was required in the early stages of our Vietnam buildup in 1965-1966. All of these NDRF ships are approaching the 30-year hull life that marks the extent of their usefulness.

However, while numbers of self sustaining breakbulk ships in the active and reserve U.S. merchant fleet are being drastically reduced, the active fleet itself is not disappearing or, in fact, declining in capacity. It is well on its way into the intermodal container revolution mentioned earlier.

The peacetime productivity of these new ships, compared to the breakbulk ships built during and after World War II, approaches the phenomenal.

In shallow water, or over the beach, jeeps and trucks are transferred from USNS Comet to a lighter.

A comparison, perhaps extreme, yet valid, shows that an SL-7 container ship has almost 11 times the annual productive capacity of a C-2 cargo ship.

The newer ship, although requiring high capital investment, not only provides this increased ton-mile productivity, but does so while providing the shipper much greater protection for his shipment than the older ship, and a more precisely scheduled delivery. This is a remarkable and welcome improvement for the peacetime ship operator and the shipper, whether military or civilian. However, in time of national military need, it poses many problems to the logistician responsible for moving war material to a combat theater or contingency area.

First, the fact that this new ship can do the same work (on a ton-mile basis) as 11 older ships also means that there will be significantly fewer ships in the active merchant fleet than previously required to move similar amounts of cargo. Fewer ships limit flexibility for both military shippers and ship operators. Several small ships can serve more ports than a single large vessel.

While the modern container ship can move rapidly from point to point with its well protected cargo, at each point on its route there must be facilities to load or unload the cargo containers, plus large marshalling areas to segregate the containers prior to their further movement. And, finally, if the item to be shipped doesn't fit into a standard container we can forget the container ship and look elsewhere for a means to move that particular piece of equipment.

This move to bigger and fast container ships, although necessary and profitable in the peacetime commercial world, costs the nation's armed forces an incalculable amount of flexibility and responsiveness. These are two of the most critical factors that drive today's military decisions, and are major considerations in diplomatic decisions on the international level.

Last year's Arab-Israeli War, and the resultant high priority effort by the United States to resupply Israeli forces, provided many lessons to logisticians, and reinforced facts known for years, but still not faced up to.

The U.S. response to Israeli needs was massive and prompt during the 33 days of the crisis. Acting on only seven days notice, Military Airlift Command (MAC) had its first C-5 Galaxy loaded and airborne for Israel within nine hours of the time Washington ordered the airlift portion of the effort. By the end of the 33-day airlift, more than 22,000 tons of cargo had been airlifted to Israel on 145 C-5 and 421 C-141 flights.

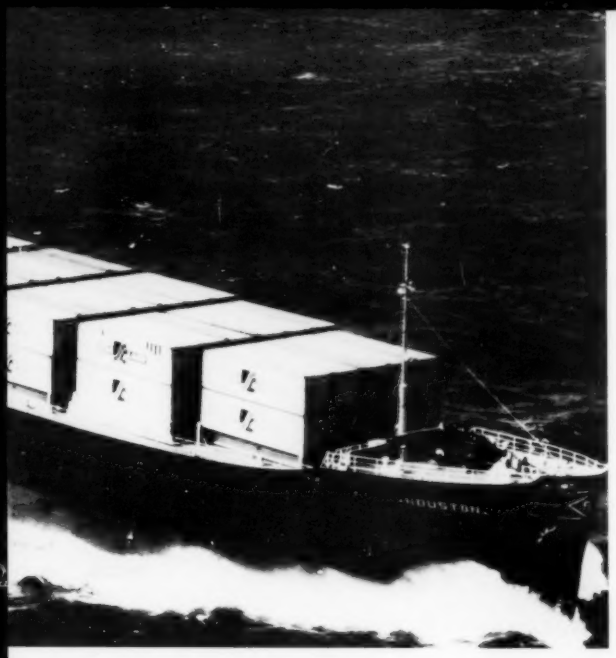
Though container ships like the Sea-Land Houston are able to move rapidly from point to point, at each point on the route there must be sophisticated facilities to handle, and room to marshal, the containers.

An equally impressive record was compiled by the members of the Military Traffic Management Command (MTMC) in mobilizing the equipment and managing the movement of 75,000 short tons of cargo to aerial ports and ocean terminals.

Up to this point in this review we can take great pride and have a considerable feeling of assurance that overall, our national defense transportation team, both military and civilian, met and in many instances exceeded requirements placed on it during the October War.

However, before resting on our laurels, let's examine the other side of the picture; namely, what happened to the 78,000 measurement tons (53,000 short tons) of cargo delivered to the ocean terminals by MTMC for ocean shipment.

Fortunately, and I mean to emphasize that word, the nine ships that carried this surface cargo were provided by the recipient country. If we had relied on the Navy's Military Sealift Command (MSC) controlled fleet to move this cargo, great difficulty would have been encountered and overall success of the operation would have been significantly reduced. The MSC fleet is limited in size, dispersed worldwide and, unlike the airlift force, can not



readily be increased due to a paucity of suitable ships available for charter from the merchant marine.

The nine Israeli ships in the surface cargo movements were primarily conventional breakbulk ships. Despite the dynamic success of the airlift portion of this operation, the fact remains that more than two-thirds of the total tonnage moved in the crisis period went aboard these nine ships. If the average loads of these ships were to have required air transport, each voyage would have equated to approximately 80 C-5 flights or about five times the C-5 sorties flown in this maximum effort. Once again, the necessity for surface cargo movement capability, even in the most extreme emergency, was firmly established.

Returning to my use of the word "fortunately" when discussing availability of the nine Israeli ships, the term was employed because the capacity of those few ships approximated the total capacity of the MSC government owned dry cargo fleet. This nucleus fleet consists, as of this writing, of only 11 deep draft ships, 6 of which are World War II vintage Victory ships. This assortment of antiquated vessels is augmented by a number of chartered ships, which like the nucleus fleet, are under effective government control for the duration of their charters.

However, even without direct involvement in the Israeli resupply efforts, MSC experienced difficulty in providing the numbers and types of ships required to fulfill its sealift mission in support of U.S. forces during the crisis period. If the United States had been required to supply the surface portion of the transport, in the same proportions as it did the airlift, the shining success of this logistical effort would have been tarnished, if not totally dulled.

To further our insight, from a "lessons learned" standpoint, ask what would we have done if a military contingency requiring oversea movement of U.S. Armed Forces had erupted during this period.

It is this question, the answer to which is currently unknown, that the military logistician finds most perplexing. It is easy to assume that MSC can enter the charter market at any time and, for a price, charter whatever shipping assets are required for a given emergency.

Unfortunately, that is not the case in today's maritime industry. The big new highly productive ships — container ships, barge carriers and roll-on, roll-off ships — entering or already in our merchant marine, no longer carry out singular type operations. They are essential components of total intermodal systems. As such, their uninterrupted employment on assigned runs is critical to both their owner's interests as well as the nation's foreign trade system.

According to MSC, a maximum of only six conventional breakbulk ships has been offered for charter at any given time in the first half of this calendar year despite a continuing request for proposals to the industry. Obviously, short-term ship chartering by MSC will not give the command the responsive capability it desires — and that Defense requires.

The scope of the problem is of such proportions that, at its worst, it could lead to national disaster. In any event, it will lessen the nation's capability to fulfill its responsibilities as a free-world leader.

There are solutions to the problem, but they are not easy, cheap or capable of rapid initiation. However, this is a problem we not only face today, but one that will be greatly aggravated by time. Immediate action should be taken to initiate short-range modernization of the MSC controlled fleet.

The Navy recently recommended that Department of Defense authorize a sealift improvement program intended to modernize MSC's active fleet, and to provide a small (about 20 ships) ready reserve fleet. This program calls for the purchase or long term charter of militarily suitable ships, many built in late 1960, and now excess to needs of U.S. commercial operators. Most would be breakbulk ships.

Under Defense Department control, these ships could be maintained by MSC in ready reserve status when not needed to move Defense cargo. Fully

equipped and partially manned, they would provide a means of meeting both Defense peacetime surge requirements and contingency needs.

Peaks and valleys in shipping requirements are a fact of life in the Defense sea transportation business. The ready reserve fleet would be our insurance against needing ships when a peak, such as the October War, unexpectedly comes upon us.

A modest sized fleet of such ships acquired over the next few years would not be inordinately costly. However, the number of such ships available for purchase may be severely limited in future years.

This proposal should be supported by the Army. Acquisition of these relatively modern breakbulk ships is viewed as an interim measure. Its attraction is based as much on the near-term modernization possibilities presented as on the additional capacity and flexibility it will add to the MSC fleet.

For the long term, and due to construction leadtime in the shipbuilding industry, one has to look years ahead. Close scrutiny of existing commercial ships has revealed that a new generation of roll-on, roll-off ships is proving to be successful commercially. With little modification, they could be adapted for the transport of military cargoes. In my opinion, the U.S. shipping industry now has produced a ship that can accommodate practically the entire gamut of military cargo — from tanks and helicopters to palletized rations — and still have commercial viability.

It is a fact that the changing profile of military requirements since World War II has created shipping problems. Military units now rely on great numbers of wheeled and tracked vehicles and helicopters. Changing concepts, such as fly-away delivery of helos also have made older ships less compatible with current military needs. But, new commercial type, roll-on, roll-off ships can provide the flexibility U.S. forces require.

The Army should support a formalized program, to acquire such ships in suitable numbers by MSC to insure the maintenance of a viable sealift capability through the remainder of this century.

Although the invasion of Europe occurred under circumstances and conditions we may never see again, it could not have been successful without the availability of thousands of ships to transport the material to staging areas in England, and then across the English Channel. Even if C-5 type aircraft had been available at that time, they could have made only a small contribution to fulfillment of the vast requirements of the invading armies. Ocean shipping is what made possible D-Day and other World War II successes.

Today's military-political situation probably precludes future D-Days of World War II scope. Our requirements are centered on quick response to contingency situations, followed by a readily available capability to adequately sustain forces deployed over a period of months or even years. We have a proven quick-response capability in the MAC fleet of C-5 and C-141 jet aircraft. But, we lack the long-term sustaining capability that should be provided by cargo ships controlled and readily available through the Military Sealift Command. It is imperative that this imbalance be corrected. ⚓

Brig. Gen. Garland A. Ludy recently retired as the director of Army transportation in the office of the deputy chief of staff for logistics.

The 52-year-old native of Jonesbury, Mo. is a graduate of the University of Missouri at Columbia and was commissioned a second lieutenant in 1944.

During World War II, he served with the 255th Infantry Division. The general's Army career has included study at the Command and General Staff College, Army War College and the Armed Forces Staff College, plus numerous assignments in all facets of Army logistics.

450 Million Tons in 25 Years

By Rodger Litchfield

When the fledgling MSC cargo and passenger divisions received 12 attack cargo ships, 6 transports and 3 attack transports from the Naval Transportation Service in October 1949, people at the new command knew it was only a beginning. Within 5 months, the command had 41 transports, 31 cargo ships and 19 time-chartered commercial cargo ships, all transferred from the Army Transportation Corps. Passenger ships then totaled 50, and MSC had 62 cargo carriers.

A unique mix of crews sailed the ships. Transports were either U.S. Navy commissioned ships with military manning, or U.S. Naval Ships with Civil Service crews plus a Navy military detachment. The masters of the ships and commanding officers of the military detachments had separate areas of responsibility and seldom faced a situation where responsibilities conflicted.

The cargo division still controls government owned ships with Civil Service crews and chartered ships operated by civilian seamen hired through the union hiring halls.

When the Korean War started, MSC expanded to meet a wartime situation. The passenger division controlled more than 60 transports throughout the war and at the peak employed 71 such ships. The cargo division quickly expanded using time chartered and GAA ships — government owned vessels operated by private contractors under General Agency Agreements. During the war a maximum of 232 GAA ships were used, all withdrawn from the National Defense Reserve Fleet. In one year, 154 ships were on time charter. At the height of the Korean war the MSC cargo and passenger divisions controlled 467 ships.

A Skyraider is unloaded from USNS Card at Saigon Harbor in 1965.

Following the Korean War the fleet was quickly reduced to a size necessary for peacetime movement of troops and supplies to military bases around the world. During the balance of the decade, troops and their families were usually carried to their overseas bases by command transports. A balanced fleet of approximately one-third transports, one-third deep draft cargo ships, and one-third small cargo ships ranged between 100 and 200 ships. Nearly all were part of the command's government owned fleet of ships — then referred to as the nucleus fleet.

Many changes took place in the years between the Korean and Vietnam wars. Less productive ships such as attack transports and obsolete cargo ships were removed from the fleet. New types of ships were designed and put into service. Two C-4 cargo ships were specially reconfigured to serve as heavy-lift ships.

A seagoing roll-on, roll-off ship was designed and built for the cargo division. The operation of the first roll-on, roll-off ship was so successful that four more were obtained. Two older ships were converted and two new ones designed to meet the needs of the cargo division. The GTS Admiral William M. Callaghan, named for the first commander of MSC, was the first cargo ship in the world to be driven by gas turbine engines.

Ships also were built or modified for Arctic and Antarctic operations. One of the biggest operations was construction of the Distant Early Warning Line ranging from Alaska across Canada to Greenland. Support of this project involved more than 100 cargo ships operating from both coasts.

Additional types of requirements emerged,

including a need for ships for missions other than cargo lift. The U.S. space program was expanding and down-range tracking stations were being built. They needed supplies. The MSC cargo division provided support ships capable of discharging cargo over the beach at the tracking stations.

Also, during those years, a number of oceanographic ships were manned and operated by MSC. Government owned cargo carriers were converted to fleet ballistic missile support ships to resupply the Navy's missile force. Meanwhile, the rapid growth of the space program created a need for MSC to provide and operate range tracking vessels. The increasing number of ships being operated for non-transportation purposes by the cargo division led to establishment of a special projects division within operations.

As MSC entered its second decade, great changes were taking place in the air transport field. Jet aircraft had come of age and were able to move large numbers of troops and families economically over long distances. As a result, by 1960 the transport fleet had been reduced to 16 ships. That was still larger than any commercial passenger fleet, however.

From 1960 until the Vietnam buildup started, MSC's fleet averaged around 85 ships. At one point the chartered fleet was down to only two vessels. In 1963, the low point of the cargo and passenger divisions was reached when MSC operated only 82 ships. They included 16 transports, 34 deep draft cargo ships, and 32 small cargo vessels.

During this period the biggest change in the U.S. Merchant Marine since steam replaced sail was taking place. The container revolution was in full swing. With advent of the container one gang of longshoremen could load as much cargo in 12 hours as 6 or 8 gangs formerly loaded in a week. But, huge investments were required for ships, containers, chassis, container cranes, terminal equipment and warehousing. To provide the most effective and economical sea transportation to Defense, MSC offered military cargo for movement on commercial container ships whenever possible.

Substantial military cargo was suitable for container delivery. Frozen food could be delivered from the fields to the commissary shelf without exposure to the elements. Automobiles could be carried on deck in sealed containers. Even ammunition was shipped from the manufacturer directly to gunners in Vietnam in sealed containers.

The container revolution was a great benefit to the command as a whole, but it also generated problems for the cargo division. In the past, bottom stow cargo was loaded aboard ship first. Bulky items such as vehicles were top stowed providing maximum utilization of space. However, since bottom stow cargo was ideal for containers, nearly all of it soon was shipped that way.

Only bulky cargo the container ships could not handle, or cargo for the unprofitable runs where the commercial operators didn't go, was available for breakbulk ships. MSC ship utilization declined and earned revenue often did not pay voyage expenses.

The Vietnam buildup started in late 1965 and accelerated in 1966. While MSC's nucleus fleet remained relatively constant, the total controlled fleet expanded to 436 ships. Included were a maximum of 172 GAA ships and 167 time chartered ships.

Fortunately the Vietnam buildup occurred when many American shipping lines had begun modernizing their World War II fleets. Many new breakbulk and container ships were being delivered to replace aging Victories, C-2s and C-3s. The life span of these old ships was extended for a few years so they could go to war for a third time. Had the buildup come a few years later, things would have been different. The number of time chartered and GAA ships operated at the height of the buildup almost equals today's entire American breakbulk fleet — including the reserve fleet.

In 1965 MSC transports were pulled off their normal runs to move troops into Vietnam. During 1968 and 1969, all but three transports then sealifting Korean troops to and from Vietnam were

Sea-Land containers are lined up at the deepwater site near DaNang.

removed from service. In 1968 the passenger division merged with the cargo division to form the present cargo-passenger division. In 1973, the final troop transport was withdrawn from service.

The wind-down of Vietnam fighting and reduced troop strength in other world areas has had a great effect on the cargo-passenger division. The last of the GAA ships was returned to the reserve fleet in 1970. Chartered ship rolls have declined steadily to a present strength of about 30. During June and July the last World War II Victory and C-2 class cargo ships operated commercially under the American flag were returned to their owners.

At the same time the sealift command's government owned fleet also has been reduced. All LSTs and small cargo ships have been removed from service. The deep draft fleet has been reduced through attrition to only 12 ships.

During the recent fuel shortage the cargo-passenger division took the lead in efforts to conserve fuel. A schedule was worked out for Callaghan to reduce speed and save fuel while still moving needed cargo. Other ships also sailed at reduced speeds consistent with required delivery dates for cargo. These initiatives began even before Department of Defense policy required such action.

In the future, the MSC fleet is expected to decline further from the 48 ships now in service. Older government owned ships are being retired when major shipyard overhauls are needed.

The chartered fleet will include 2 heavy lift ships, 2 Seatrains, 3 foreign flag breakbulk ships for range support, 3 coal ships, the GTS Callaghan, and 14 Challenger class ships, supplemented by other chartered ships when necessary.

Problems? It now appears that the greatest will be a lack of reserve fleet assets capable of meeting future contingency needs. In Vietnam, during the war in Korea, and in other emergencies over the past 25 years, MSC has been able to rely upon ships withdrawn from the National Defense Reserve Fleet and tramp ships. Inventories of both types now are going the way of the Dodo bird — extinction.

Solutions? There is no easy answer, but as the MSC commander has often pointed out, MSC and Defense units the command serves, will have to learn to effectively use the type and number of ships which are available. ⚓

USNS Towle stops near the foot of Mt. Erebus in December 1963 before passing through the ice-packed channel leading to McMurdo Station, Antarctica.

Changing With the Times

By Don Dahl

In the fall of 1949 the then modern World War II T-2 tanker was the predominant tanker in both the U.S. and foreign flag fleets. The U.S. tanker fleet totalled more than seven million deadweight tons and was the largest in the world. The era of the jet plane was just beginning and troop and passenger ships were still primary people movers.

When MSC was formed, 57 tankers (55 T-2s and 2 T-1s) owned by the government were transferred from Navy. All were contract operated by four commercial companies and manned by civilian merchant seamen. These T-2s provided 25 years of effective service. In Korea, the Arctic, Mediterranean, the Pacific, Southeast Asia, and nearly all other areas of the world they supported the armed forces.

Within the current fiscal year, the last eight of the original 55 will be inactivated and replaced by nine newly built Sealift-class tankers of 25,000 deadweight tons and 16 knot cruising speeds.

The T-2s were considered large tankers in 1949. During the Korean War, the MSC fleet of government owned tankers was augmented by tankers furnished by private firms. Some of these were new "super-tankers" of 28,000 and 30,000 deadweight tons. As the years passed, size of the super-tankers grew to 60,000, to 80,000 and 100,000 tons. The term super-tanker became somewhat confusing.

The world tanker fleet increased from 24.2 million deadweight tons to more than 256 million tons during MSC's lifetime with the average ship size increasing from 12,000 to 56,000 tons.

In the U.S. fleet, average ship size also has increased, but the number of ships has been

Very Large Crude Carriers like the TT Brooklyn passing the Manhattan skyline are the result of the growing demand for crude oil. The 225,000-deadweight-ton tanker is the largest ever constructed in the U.S.

reduced. Until a few years ago, the total deadweight tonnage of the U.S. fleet remained constant at about seven million tons. But, discovery and pending development of the North Slope oil fields of Alaska and 1970 amendment of the Merchant Marine Act gave new life to U.S. tanker construction.

The current total is about 9.5 million tons with a relatively large number of tankers under contract for construction. But, this increase is microscopic compared to progress by other nations.

In world fleet rankings, the United States has slipped to a poor sixth behind Liberia, which had only 13 tankers in 1949, and Japan, which then had no tanker fleet. The U.S. economy, now more dependent upon foreign crude oil for energy, also relies on foreign flag tankers to transport the crude oil. Only 5 per cent moves in U.S. flag ships.

USNS Millicoma, a T-2 tanker built in 1943, will be retired and replaced by a new Sealift class tanker.

The MSC tanker fleet, in terms of total deadweight tons, happens to be approximately the same today as it was 25 years ago — 1 million tons. But, size of the fleet is the only similarity. The number of ships now is only 39 with an average size of 26,000 tons. Only 13 are government owned (by year's end, this number will only be 8). The majority are privately owned, long-term chartered tankers.

Other than the six tankers acquired in the late 1950s with appropriated funds, services of new tankers have been provided under various forms of build and charter procurement whereby private investors construct tankers for long term charter to MSC. The nine Sealift class tankers are being constructed in this manner to meet MSC specifications. Eight have been launched, two delivered, with all to be delivered by early 1975.

The MSC tanker fleet has varied in size since 1949 as the world situation and military activity also varied. During the peak year of the Vietnam War, the MSC fleet increased to 2.5 million deadweight tons and included 102 ships. Since insufficient U.S. flag tankers were available to meet the military requirements, 27 tankers were foreign flag charters.

Tanker manning standards also have been reduced. Post World War II T-2s had a crew complement of 48. Today, because of reliance on automated equipment, crew size has been reduced to 26 on the Sealift class tanker.

The types of petroleum cargoes delivered also have changed greatly, again a direct result of the jet age. In 1949, some 44 per cent of MSC tanker cargo was Navy special boiler fuel, 21 per cent was aviation gasoline (for piston engines), and only 7 per cent was jet fuel.

This past year, with a similar total of over 100 million barrels lifted, jet fuel accounted for 57 per cent, clean distillate boiler fuel 18 per cent, Navy special only 10 per cent and aviation gasoline only 2 per cent. The decline in Navy special has been the result of the Navy shifting to the higher grade fuel — clean distillate — to fire fleet ship boilers.

The shift to high grade fuels has placed greater emphasis on quality control of petroleum products to limit contamination. The principal method of insuring better protection of products has been coating the inside of cargo tanks. In 1954, MSC

started a program to completely coat the cargo tanks on 13 tankers, both to protect the products carried and prevent corrosion of the ship's steel.

The program eventually covered the entire fleet. Today, all tankers in the MSC fleet have coated tanks except one which carries only Navy special fuel. The Sealift class ships, in addition to coated cargo tanks, have coatings inside all cargo piping and valves.

The sources of petroleum, and distribution patterns, also have changed over the years. Large quantities of petroleum no longer are moved from U.S. Gulf ports to the Far East and Pacific. Movements from the Arabian Gulf also are down. More refineries have been built in the consuming areas, such as in Korea, Okinawa, Guam, Hawaii and Alaska. Most, except the Alaska refineries, are supplied with crude oil from the Arabian Gulf, delivered by foreign flag ULCCs. A high percentage of Defense requirements call for distribution of refined products within a specific area on short voyages.

Fleet support, now an integral command mission, was developed by MSC tanker crews in 1958 and 1959. Government owned tankers were equipped with simple, low-cost transfer manifolds and stations to enable underway refueling of fleet oilers. Rigs were transferred to the MSC ships by their "customers."

In the early 1960s, MSC T-2s regularly were assigned to support Sixth Fleet operations in the Mediterranean for periods of 30 to 60 days. During these extended operations, government owned tankers conducted more than 50 transfers without accidents, and demonstrated to the marine insurance underwriters the relatively low risk involved. Later, contracts were modified, and all long term chartered tankers (one year or more) in the MSC fleet were equipped to provide a refueling-at-sea capability.

In the future, both fleet support and point-to-point tanker operations will continue to be major tasks of MSC. Men and material can be airlifted on a large scale, but tankers still will be needed to deliver jet fuel used by air carriers.

New ships required for the tanker fleet probably will be acquired through the build and charter method — since appropriated funds are needed to modernize the combatant Navy fleet. Civilian-manned fleet support tankers also will no doubt be acquired by this method. Ultimately, it is likely that government owned tankers will disappear, replaced by privately owned ships providing service under long term charters.

The MSC tanker fleet eventually will consist of only clean petroleum carriers as military use of "black" boiler fuel is terminated. Fewer grades of products will be carried. Common grade jet fuel already is being developed to replace Air Force JP-4 and Navy JP-5. Also, as distillate replaces black boiler fuel, diesel fuel will succeed distillate to provide a common fuel for use in both diesel and steam engines.

Size of tanker crews will continue to be lowered by greater reliance on automated equipment and electronic controls. A total of 10 or 12 people in a seagoing tanker crew can be anticipated with the officers simultaneously licensed as engineers, deck officers and communicators. When ships arrive in port, a shore-based crew will handle loading and discharging operations and specialists will accomplish maintenance and repairs.

It is evident, then, that MSC tanker operations will continue to be dynamic, changing to keep pace with evolutionary trends in ship development and changing industry practices. ⚓

USNS Sealift Pacific, first of nine 25,000-deadweight-ton tankers built for long-term charter by MSC, transits the Panama Canal.

Feeding the Fleets

By Sharon Ouellette

When the Department of Defense created MSC to serve as single manager operating agency for ocean transportation, its mission included a sometimes overlooked provision — that the command, in addition to providing point-to-point sea transportation for military passengers, petroleum products and cargo, would serve as an operating force of the U.S. Navy.

Through 25 years of operation, two wars, and several crises, government-owned ships of the command were only occasionally involved in coordinated operations with the Navy's combatant fleets. In the summer of 1972, Military Sealift Command ships became an integral element of the U.S. Navy's fighting fleets at sea when the Civil Service crew of U.S. Naval Ship Taluga, a 28-year-old, battle-scarred and beribboned oiler, passed their training graduation exercise by simultaneously refueling the attack carrier Ranger and the guided missile destroyer Hoel off southern California.

In early 1971, Chief of Naval Operations Admiral Elmo Zumwalt formed a study group consisting of senior officers and civilians from his staff, the Maritime Administration, Military Sealift Command, and the Center for Naval Analyses. Purpose was to determine how military manpower and Navy money might be saved by greater utilization of MSC and U.S. flag commercial ships in support of Navy fleets.

Earmarking money for construction of auxiliary fleet support ships would slow-down fleet modernization. At the same time, the naval manpower structure was changing with advent of all-volunteer forces. The high cost of training Navy men made it imperative that they be assigned to the complex warships of the fleet whenever possible.

If the Navy's civilian mariners, who had been at sea with ships of the sealift command for many years, could substitute for uniformed Navy men in fleet support ships, better employment of Navy seagoing personnel could be achieved with Navy men in warships and the civilian sailors manning selected units of fleet service forces. Testing and training of U.S. flag merchant ships and crews in support of the combatant fleets would add to the operational flexibility of the Navy in peace and emergency.

The study group proposed a series of seagoing tests to evaluate capability of Military Sealift Command mariners to man a Navy fleet oiler and to provide direct support to the fleets. The group also suggested evaluating an MSC chartered merchant tanker in providing opportune or emergency underway replenishment to fleet units. The CNO agreed with the recommendations and directed his commanders to put them into operation. A series of seven tests was planned and dubbed Charger Log.

The first Charger Log test was conducted in February and March 1972. Coordinated by the Maritime Administration, it involved the MSC chartered tanker, SS Erna Elizabeth, and evaluated ability of commercial tankers to provide underway replenishment of Navy ships.

Manned by a normal 32-man civilian crew, Erna Elizabeth refuled units of the U.S. Atlantic Fleet and ships of North Atlantic Treaty Organization nations. Operating in the Atlantic, the Carribean and Mediterranean, the ship made 39 underway replenishments. Recipients of fuel included carriers, cruisers, destroyers, fleet oilers and large amphibious vessels. Some were U.S. Navy ships. Others were Dutch, West German, Norwegian and Canadian. Deep draft ships were fueled alongside while the smaller escorts, which could not pass fuel rigs to the tanker, were fueled through a hose trailed astern from the 37,000-ton merchant ship.

Charger Log II was a year-long test during which Taluga was transferred to MSC and manned by a U.S. Civil Service crew. Taluga was assigned to MSC in May 1972.

Since then Taluga has made more than 500 underway replenishments including simultaneous refuelings of two ships.

During the past year, Taluga has been at sea 66 per cent of her time. That percentage is well above the rate for Navy-manned fleet oilers. The crew's operational record has earned many congratulations. Typical is the message received from then Vice Adm. James Holloway, commander of the Seventh Fleet:

"Taluga's performance as a fleet oiler has been noteworthy during the recent high tempo operations since October 1972. Taluga has spent line periods of as much as 30 days in service to the fleet.

Her operational tempo of 66 per cent has been in keeping with fleet oilers and higher than most mobile logistic force ships. Taluga has continually met her schedule with professionalism."

Added support for Admiral Holloway's view was contained in the June 1973 Service Group Three readiness report where Taluga was ranked No. 2 of six ships of comparable class in the service group. Her overall performance score was 94.6 of a possible 100 per cent in the latest report of June 1974. Taluga was rated No. 1 among fleet oilers in the Seventh Fleet, and USNS Passumpsic, No. 2.

Overall, Charger Log II has been a resounding success. Performance of Taluga and her crew during the year-long test is a primary reason why MSC will be operating other fleet support ships Along with Taluga, USNS Marias serves the Atlantic Fleet and USNS Passumpsic and USNS Mispillion the Pacific Fleet. Four other oilers are scheduled for transfer to MSC by June 1976.

Designed to provide a basis for comparison of civilian-military manning of comparable oilers, Charger Log III was canceled when it was found that

Crewman of the Navy oiler USS Chipola heaves a line to USNS Schuykill as ships prepare for an underway consolidation.

Serving Pacific Fleet combatant ships, USNS Passumpsic simultaneously refuels the carrier USS Oriskany and destroyer USS Morton.

to reduce a Navy oiler's military crew comparable to that of Taluga it would be necessary to assign an excessive number of senior petty officers to the ship's crew to provide comparable experience and ability.

Charger Log IV is a continuing program that takes advantage of the fact that MSC's government owned and chartered tankers operate worldwide in distributing fuel for all military forces. All of MSC's government owned and commercial tankers on long term charter are equipped to receive refueling rigs from Navy fleet ships. Under this training program, fleet ships rendezvous with MSC tankers on or near their scheduled route to minimize delay of the MSC vessel. Peacetime replenishments help develop the crew expertise which would be needed in an emergency.

Since October 1971, more than two dozen opportune replenishments have been conducted under the program. That pace is expected to increase. Most have involved token transfers or consolidations of fuel to determine feasibility of the concept. One underway-replenishment was conducted by a Navy amphibious ship, USS Blue Ridge, and the MSC-chartered SS Falcon Princess. Some 3,800 barrels of Navy distillate fuel were transferred to Blue Ridge in August 1973.

In another example, the commercial ship SS Ogden Yukon replenished the Navy oiler USS Hassayampa. This transfer of Navy fuel took place off the coast of South Vietnam, near DaNang, with 40,000 barrels of fuel pumped to the Navy vessel.

In August USNS Tallulah took part in a special consolidation rendezvousing with USS Milwaukee in the Eastern Mediterranean. Tallulah transferred 40,000 barrels of jet aircraft fuel and 50,000 barrels of Navy distillate to Milwaukee. Tallulah is a contract operated, government-owned tanker which recently rescued 256 crewmen of a burning cruise ship, the Cunard Ambassador.

On the other side of the world, the time-chartered tanker SS Council Grove conducted an underway replenishment exercise in July with USS Ranger, a Pacific Fleet aircraft carrier. Again, it was a convincing demonstration of the feasibility of opportune replenishment of Navy vessels by MSC's civilian manned tankers.

An example of emergency application of the Charger Log IV concept was use of SS Spirit of Liberty, an MSC chartered commercial tanker, to provide both afloat storage and underway replenishments for oilers of the U.S. Sixth Fleet in the Mediterranean. SS Trojan performed a similar service for units of the Seventh Fleet.

Under Charger Log V, MSC has been assigned the cable layers USNS Aeolus and Neptune, and the fleet tugs USNS Atakapa, Lipan, Mosopelea and Ute. These ships, transferred from Navy fleet assets, continue to support Navy fleets on a day-to-day basis.

In 1977, the first of four new commercial type ocean tugs will be added to the MSC fleet support inventory. By the end of 1979, MSC will be operating 8 oilers, 2 cable layers and 8 fleet tugs. The 18 ships will represent about 25 per cent of the Navy's fleet auxiliary ships.

In Charger Log VI commercial merchant ships with no capability to pass fuel rigs for along-side refueling of Navy ships transferred fuel at anchor, or underway over the stern. Soviet Union tankers follow the same practice — and have been for many years.

During Charger Log VI exercises, MSC controlled tankers transiting the Indian Ocean were made available for at-anchor replenishment of Navy escort vessels operating in that area. Generally, transfers were made at selected anchorages, in international waters, near normal tanker routes. One typical exercise involved the Navy destroyer escort USS Trippe and the MSC chartered tanker SS Montpelier.

Charger Log VII was designed to evaluate capability of new scheduled commercial cargo vessels to supply Navy ships at sea with dry stores. In December 1972, cargo was transferred by helicopter from Prudential Grace Lines' SS LASH Italia, a barge carrier, to USS San Diego, a fast combat support ship. At the time, both ships were steaming on parallel courses at 20-knot speeds. Over 300 tons of cargo were lifted in 37 minutes from open gondolas and barges on the LASH Italia decks to San Diego by helicopters from that ship.

As a result of the success of various tests in the Charger Log program, the main thrust of the former Chief of Naval Operations' programs has been achieved. Civilian-manned ships can satisfactorily support Navy fleets in peacetime and can fulfill assigned war missions.

It is possible that other fleet support-type ships may be assigned to MSC in future years for civilian manning. Studies and operational tests are continuing with basic objectives still centered on better utilization of both Naval and maritime manpower resources and ship assets. ⚓

Scouring Oceans and the Skies

By Bill Barker

Military Sealift Command was not very old when it first received requests to perform unusual supply operations. The fact that the Department of Defense began to think of MSC as the logical agency to assign more and more sea tasks was not unexpected. From Arctic to Antarctic supply it was a small jump to operation of oceanographic research, hydrographic, missile tracking, communications relay, floating repair and many other types of ships.

In 1958, the MSC charter was expanded to include operation of special project ships. The task was assigned to the cargo division. The first special project ship activated in 1958 for MSC operation was USNS Josiah Willard Gibbs, a converted seaplane tender. Three more oceanographic survey ships, USNS Bowditch, Dutton and Michelson, were brought into the fleet in the latter part of 1958.

In 1960 four missile range instrumentation and recovery ships were added to the MSC fleet. In August 1960, USNS Longview added to space history when her helicopter recovery team snatched from the sea the first man-made object ever recovered after outer space flight. Recovery of the Air Force's Discovery XIII capsule illustrated the key role played by MSC special project ships in support of U.S. exploration of space.

During 1961 three newly configured ships joined MSC's fast growing special project fleet. National Science Foundation chose Eltanin to become its floating laboratory for the U.S. Antarctic research program because of her many specialized polar features.

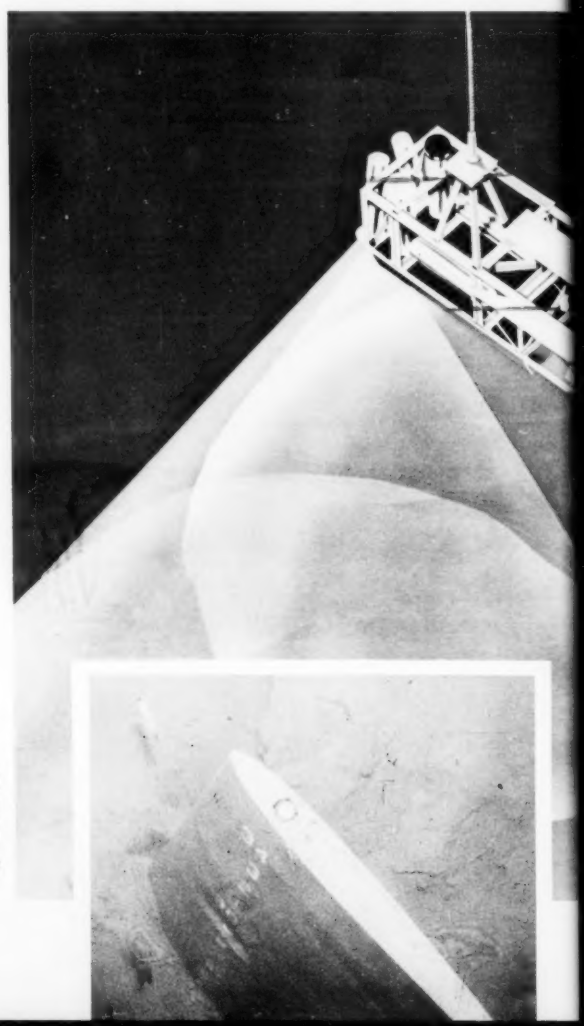
Mission Capistrano also was activated for use by the Office of Naval Research. Several of the ship's cargo tanks were removed to make way for a huge array of transducers which could be lowered through the bottom of the ship. The array, which had to swing free on heavy cables, was as tall as a five-story building and weighed hundreds of tons. The high-powered transducers were designed for detecting and tracking submarines at very long range. The third ship, Valdez, was uniquely configured as an electronic intelligence ship.

On March 1, 1962 the MSC special projects division was established.

The major characteristic common to all special project ships is that other people besides MSC Civil Service mariners sail with the ships to perform the technical missions. The technical crews can be civilian, military or a combination of both.

More important, however, than the difference between special project ships and point-to-point ships, is the difference between sponsors' missions.

During 1962 five new ships joined the special project fleet. Gilliss was the first of its class designed and built to serve as an oceanographic



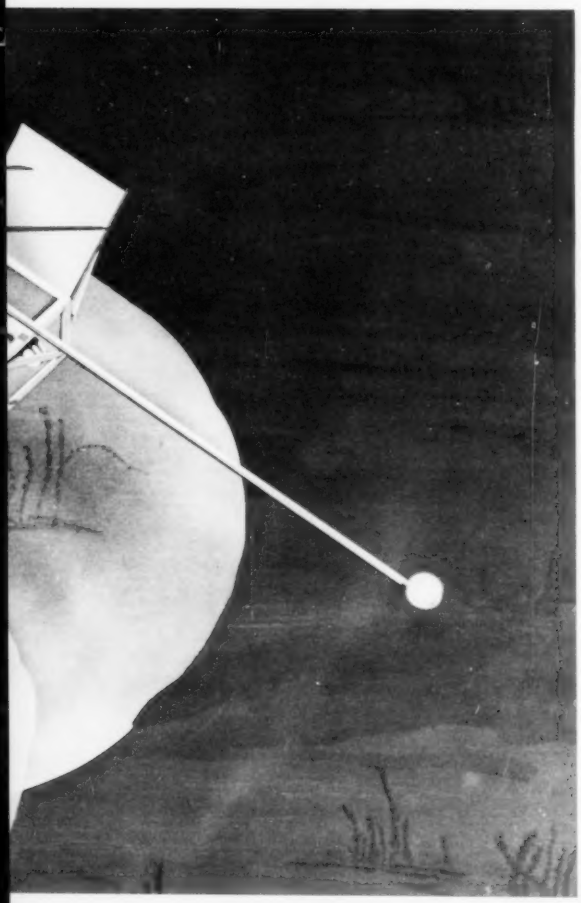
Towing an underwater research vehicle (right), USNS Mizar in 1964 located and photographed the hull of the submarine USS Thresher (inset).

research vessel. Kingsport was activated to support a National Aeronautics and Space Administration project.

In 1963 the cable ship Myer was transferred from the Army and added to the special project fleet. In February, Gibbs located and stayed with the hijacked Venezuelan freighter Anzoagui until relieved by two U.S. Navy destroyers.

Also that month, Range Tracker received a Distinguished Sea Rescue Award for rescuing a crewman of the USS Pine Island who had fallen overboard. In July Range Tracker monitored Gordon Cooper's 22-orbit space flight. In August the world's first satellite communications ship, Kingsport, relayed the first live broadcast via a synchronized communication link, a telephone conversation between Prime Minister Balawa in Nigeria and President John Kennedy in Washington.

In 1964 MSC assumed responsibility for operation of 10 range instrumentation ships. They previously had been operated for the Air Force by commercial steamship companies under contract to Pan American. Two, Arnold and Vandenberg, are equipped with extremely accurate radar and telemetry equipment. Their primary mission is tracking and analyzing reentry bodies in the terminal phase of ballistic missile test flights.



Also that year, Wheeling was converted for use as a range ship by the Navy Pacific Missile Range and Mizar was converted to a support ship by the Naval Research Laboratory.

Shortly after her conversion, Mizar helped locate and photograph portions of the ill-fated submarine USS Thresher which had sunk in deep water off Cape Cod in 1963.

MSC added two oceanographic ships during 1965. Silas Bent was the first of a larger class of oceanographic survey ships. Silas Bent's survey system then was considered the most sophisticated environmental measuring and recording system used in oceanography. In 1965 Point Barrow was configured to shuttle NASA's Saturn rockets and component parts from Seal Beach, Calif. to Cape Canaveral, Fla.

The special project fleet hit a peak in 1966 with the addition of eight ships, then totaling 45 government owned vessels. Five new ships supported NASA's Apollo program. Three were converted T-2 tankers. The entire tank section of these ships was replaced by a longer and wider mid-body. Installation of the section increased each ship's length from 525 to 595 feet and the beam from 68 to 75 feet. The ships carried equipment similar to that installed in the space flight center at Houston. If necessary, shipboard crews could take command of the capsule.

Another first in floating seagoing platforms was conversion of USS Albemarle, a former seaplane tender, to a helicopter repair ship which could be deployed to any area desired. Named Corpus Christi Bay, the ship had repair facilities and spare parts to overhaul or rebuild damaged Army helos.

In 1965, Michelson also received the Distinguished Sea Rescue Award for rescuing six crew members of the Nationalist Chinese SS Grand which had foundered in heavy seas. When an H-bomb was lost off the coast of Palomares, Spain, after two Air Force bombers collided, Mizar again helped search for it.

After five years of deployment in Antarctic waters, the workhorse of the special project fleet, Eltanin, returned for overhaul in 1967. She had spent 1,526 days at sea and had steamed 194,000 nautical miles.

During 1968 only one newly constructed

oceanographic ship joined the MSC fleet. Five range instrumentation ships were returned to the Maritime Administration for disposal or placement in the National Defense Reserve Fleet. Coastal Crusader, Rose Knot, Sampan Hitch, and Timber Hitch had participated in both the Gemini and Mercury space programs. Richfield, a Victory hull, also was retired.

Although special project fleet size had decreased, the active ships were kept busy. Mizar again proved herself a valuable asset. When USS Scorpion disappeared while enroute to the United States in May 1968, Mizar was loaded with necessary equipment and sailed to assist in the search. The ships was at sea almost continuously for five months in all kinds of weather. The only interruptions to the search were necessary calls at the Azores for supplies. Mizar's crew and Naval Research Laboratory scientists worked around the clock in 12 hour shifts, Their efforts were rewarded when they located and photographed the hull of Scorpion in 10,000 feet of water 400 miles southwest of the Azores.

Four more ships were deactivated in 1969. After capture of USS Pueblo, the electronic intelligence ships operated by MSC were placed in the National Defense Reserve Fleet. One Apollo ship, Mercury, and one range instrumentation ship also were deactivated. Redstone was converted from an Apollo support ship to a downrange support ship and was active in the Polaris-Poseidon program.

In 1970, reduction in the Department of Defense budget caused cutback of MSC operations. NRL's Mission Capistrano, Air Force's Coastal Sentry, Twin Falls, and Oceanographer of the Navy's Shoup all were scrapped. Davis, operated for the Oceanographer of the Navy, was leased to the New Zealand Navy and Gilliss' operation was transferred to the University of Miami. However, the special project fleet did acquire a new fleet ballistic missile carrier during this period.

All was not gloom in 1970 for MSC special projects. The cable laying ship Myer was awarded the coveted Meritorious Unit Commendation by Secretary of the Navy John H. Chafee for her service as part of a Navy task group.

In 1971, one range instrumentation ship was returned to Maritime Administration and Gibbs, one of the MSC originals, was leased by Greece. Five newly constructed oceanographic research vessels and one other ship, converted for use as a range instrumentation ship, were added to the government owned fleet. Hayes, a catamaran, was activated under the sponsorship and technical direction of NRL. Four oceanographic survey ships also were activated for use by the Navy Oceanographer. They were Wilkes and Wyman, modified versions of the Silas Bent class, and Chauvenet and Harkness, oceanographic ships of an entirely new design.

Another highlight in special project ship history was Kellar's three-day visit to the Soviet port of Nakhodka, the first visit by a U.S. Navy vessel to a Soviet port in more than eight years.

With the exception of the range instrumentation ships, MSC special project ships spend about 85 per cent of their time at sea. Since MSC takeover of Navy cable ships, they have averaged 25 days a month at sea, and have met all commitments.

In the last two years, two more special project ships received the Special Sea Rescue Award sponsored by the American Institute of Merchant Shipping and the marine section of the National Safety Council. USNS Bartlett, Norwalk, Lee and Sunnyvale also received Jones F. Devlin safety awards given by the same organizations. In 1973 Huntsville received a special sea rescue award for rescuing the entire crew of Fiona C which was afire. Hayes received the same award this year for rescuing 36 crewmen who had abandoned the burning Greek freighter Eurygenes.

Three special project ships left the fleet this year. Eltanin, after 13 years of operations in Antarctica, was leased by Argentina. The Eltanin will continue its work in Antarctica, but it's doubtful she will steam as many miles as she did while under MSC control. Sands, a relatively new ship, was leased by Brazil after nine years service with MSC under the technical direction of the Naval Oceanographic Office and Point Barrow was transferred to the Navy's Pacific Fleet.

As most people know, MSC charters commercial vessels for transportation of Defense materials. Special projects division, in conjunction with the command contracting division, also arranges for the charter of vessels of many types. They range from barges, oceanographic research vessels, submersibles, cable ships and small boats.

The people in the special projects division are justly proud of their achievements and the ships and crews they support. They are equally proud of their relationships with ship sponsors, who represent the other half of a continuing Navy effort to solve the mysteries of the oceans, and to help harness resources which exist there. ⚓

Planning the Unpredictable

By Jay Brown

Program development is not a new staff function for MSC's plans and programs division — but it has taken on a new dimension in the past decade. In the immediate post-World War II period, sealift planning was primarily a matter of effectively using space available aboard breakbulk ships.

Now, however, ships come in as many configurations as Heinz food products. Container ships, barge carriers, roll-on, roll-off (ro-ro) vessels, tankers, tugs, research vessels, all have different characteristics and are advantageous for some missions while not as well suited to other tasks assigned to Military Sealift Command. The ultimate problem faced in program development is finding the most effective yet economical means of adapting the fruits of commercial maritime technology to meet demands of both peacetime and wartime military requirements.

New ships are more highly productive than their World War II breakbulk counterparts. Productivity, however, means fewer ships on the seas. The luxury afforded planners and operators by sheer numbers of ships no longer exists.

When MSC first came into being it inherited a substantial number of vessels from the two organizations it replaced. In addition, the National Defense Reserve Fleet contained a substantial number of World War II "leftovers."

Other World War II ships operated in the tramp trade were readily available to the command for service during the Korean and Vietnamese conflicts — and several other emergencies.

Even then, however, MSC planners were looking ahead. The command has been one of the pioneers of the roll-on, roll-off ship concept. In the early 1950s, Vice Adm. John M. Will urged the maritime industry to develop a roll-on, roll-off ship to meet expanding requirements for carriage of military vehicles. The concept was not new even then. As early as 1941, the British chiefs of staff pointed out that landing craft construction was geared to meeting needs of only small-scale operations — not to requirements for landing an invasion force on the continent. A British design for a tank landing ship was taken to the United States, a design worked out and a vessel put into mass production. This was the legendary LST which figured so prominently in World War II landing operations.

The LST was the first mass-produced ro-ro, but not the first in operation. In the late 1930s Seatrain Lines operated cargo ships which carried loaded railroad cars. The cars were rolled aboard on rails installed in the ships which were used to support the British in Africa in the early phases of World War II.

However, commercial interests developed no great love affair with the ro-ro. Not until MSC realized their potential was the concept developed. The first MSC roll-on, roll-off vessel was USNS Comet, built by the Navy and put into service in 1958. She is still operated by the sealift command.

Subsequently, MSC converted the Taurus, a dock landing ship with ro-ro features, to a full ro-ro configuration. Taurus went into service in 1959. MSC also chartered the Transglobe in 1962 from Hudson Waterways, a Seatrain subsidiary. In 1967, MSC acquired two additional roll-on, roll-off ships, USNS Sea Lift, and the gas turbine ship Callaghan.

Callaghan was the only one of 27 ships built for MSC use via varied forms of build and charter procurement which was not a tanker. She now sails between the East Coast and Europe and has been a cost effective carrier of military vehicles.

Taurus and Transglobe no longer are in service, but the other pioneering roll-on, roll-off ships still are productive MSC carriers.

While it may be slight exaggeration to say that MSC proved the concept, and quieted commercial world doubts, the fact remains that the ro-ro is a type of ship whose time appears to have arrived.

Scandanavian countries exploited the basic stern-ramp concept and began commercial service. They also developed the angled stern ramp —

making dockside loading easier. This feature has been incorporated in PAD (Pacific Australia Direct) ships operating between that country and the U.S. West Coast.

Sun Shipbuilding constructed the Callaghan, built for MSC charter, and the Ponce de Leon, which started Trans-American Trailer Transport's successful penetration of the trade route linking the U.S. East Coast and Puerto Rico.

MSC is not out of the development picture. The command is currently working with Sun to develop an on-board ramp system for the Ponce de Leon class vessels to make them self-sustaining ships capable of operating without shoreside loading and unloading support facilities. MSC planners also are studying use of heavy-lift helicopters with ro-ro ships.

MSC already flies helos from a number of its ships, particularly those involved in mapping operations. The command also has been directly involved in a number of tests to harness advantages of helos and ships, one such instance being a vertical replenishment between the commercial ship LASH Italia and the Navy stores ship, USS San Diego, while both ships were underway at 20 knot speeds. A similar underway replenishment test — without helos — with a container ship will be held late this year.

To identify needs and to provide data for special design features, MSC directed a program with full service participation to evaluate capabilities of commercial barge carriers. This was known as BARTAP. While this barge transportation appraisal program did not result in acquisition of barge ships, it has provided useful information on peacetime and wartime employment potential of commercial barge carriers. Barge carriers now carry household goods, vehicles, ammunition, and a wide variety of military cargo in regular service — and their contingency potential is well known.

MSC has been involved in a number of other tests in recent years. Two off-shore discharge of container ship tests (OSDOC I and II) evaluated ability of the services to unload container ships using a variety of available landing craft, shore and floating cranes, self propelled and fixed causeways, and helicopters.

MSC also has had an interest in a series of tests designed to evaluate ability of tethered lighter-than-air craft for ship-to-shore delivery of military cargo. The command has been similarly involved in a series of tests known as Coronado, LASH Barge tests conducted by Naval Facilities Engineering Command and the U.S. Marine Corps, to determine how barges can best be used in over-the-beach operations.

Currently, MSC is working with the Military Traffic Management Command to publish a joint pamphlet covering all BARTAP activities, past and present. The two commands also are involved in establishing joint responsibilities for project

Planners from Army, Navy, Marine Corps and Air Force watch a demonstration of an Aerocrane prototype at Wilmington, Del.

management of Defense container systems.

Not all program development functions of MSC are carried on in the plans and programs office. MSC engineers represent the command as working members of an interdepartmental working group concerned with incorporating Defense Department features in commercial ships.

Objective of the Navy-Maritime Administration group is to recommend and develop criteria to incorporate national security features in commercial ships — preferably in the design stage to minimize cost. Idea is to make sure that merchant ships are able to augment sealift forces in a national emergency. Practice is to review all designs for merchant ships and to recommend features which might be incorporated.

Examples are larger loading ports to accommodate military cargo, limiting use of grey iron castings which would allow costly ship damage in combat, incorporation of self-sustaining capability, or strengthening of ship structures to allow installation of gun mounts or allow movement of extra-heavy loads in wartime. Installation of underway replenishment gear on both tankers and dry cargo ships also is considered in reviewing ship designs.

MSC operations also is involved in program development. Over the years MSC has helped fund research carried on by the Marine Transportation Research Board, an element of the National Academy of Science. MSC provides data, furnishes liaison officers, and provides panel members to assist the board's staff.

Significant studies carried on by the board included one on documentation of cargo movement. Thrust of this study was to cut documentation required via standardization while helping expedite cargo flow.

Another study, dubbed Project SLAIT, was concerned with the legal aspects of intermodal transportation. Thrust here also was on streamlining cargo flow by eliminating legal impediments which inhibit movement across national borders.

Two Defense-submitted items now being considered by the board include the economic impact of MSC's Sealift Readiness Program on competition within the merchant marine as, for example, withdrawal of ships from commercial routes for significant periods of time. Also being studied is the impact of overseas troop reductions on the merchant marine.

Exercises have been a way of life in the airlift field for many years. However, sealift exercises have been most notable by their absence in the sixties and seventies — unless one considers Vietnam a giant exercise.

The exercise picture, however, is brightening. LOTS or logistics over the shore evaluations of current capability are planned for Fiscal Year 1976, with a strategic mobility exercise planned for the same time. A Solid Shield exercise has been included in the 1975 budget and it is hoped that MSC will be able to charter both a barge carrier and barges for use in that test.

Readiness Command is discussing charter of a Maine class ro-ro for a Gallant Eagle test, also in 1975, and ability of barges in amphibious landing operations will be exercised by the Fleet Marine Force and Amphibious Force, Pacific Fleet, also in 1975.

MSC hopes are that a continuing series of exercises can be held in future years — exercises in which the command and the services it supports can gain data and develop programs which allow effective use of existing ships, or develop designs for new ones needed to meet future military requirements.

Now being worked on is an MSC study which seeks to conceptualize an advanced amphibious landing craft incorporating features of surface effect ships and air cushioned vehicles.

MSC also is very interested in development of a heavy lift helicopter which can be used with its ships.

Development studies also continue in the lighter-than-air field. Under serious consideration is a tethered balloon system that would lift more than 22 tons at a time from ship-to-shore — in five or six minutes.

Also being studied is a hybrid balloon-helicopter craft called an Aerocrane. A helium filled sphere provides capability to lift the vehicle, crew, fuel and 40 per cent of craft's designed payload. Rotor blades attached to the sphere provide lifting ability to handle the remaining payload. Four rotors mounted on an Aerocrane capable of lifting 50 tons would be powered by 2,000 horsepower turboprop engines. The crane itself would be about 180 feet in diameter with each of the four rotors 120 feet long.

That may sound far out. But, the future of Military Sealift Command, like the futures of the individuals who make it up, isn't predetermined by fate. Success in meeting tomorrow's sealift requirements demands development of assets, techniques and programs compatible with growing challenges. ⚓

The Way it Used to Be

The seven commanders of Military Sealift Command have one thing in common. They share memories of demands, challenges, and accomplishments during their years at the helm which have remained with them throughout subsequent business careers and retirement years.

Vice Adm. William M. Callaghan was commander of MSC from the time it was formed in October 1949 until December 1952. Few are more familiar with how MSC came into being and the impact the command's establishment had on the armed forces.

"The concept of a single service responsible for sea transportation was an outgrowth of the experiences of World War II, and was furthered by military unification legislation passed shortly thereafter," Admiral Callaghan said.

"Under direction of the first Secretary of Defense James Forrestal, numerous studies were made of the proposal, but were usually frustrated by contentions among the services as to the responsibilities that would be retained by each." To complicate things more, there was doubt among some Navy officers as to the feasibility of Navy assuming sole responsibility for Defense sea transportation. "Some felt that the Navy would be saddled with vast expenditures from its own appropriations to the detriment of other Navy needs," he explained.

"Those views were forcefully combatted by then Vice Adm. Robert B. Carney, Deputy Chief of Naval Operations for Logistics, who held that the Navy could not duck its logical responsibility, and that to do so might jeopardize the future of its own service forces. The Gordian knot was finally cut when Louis Johnson became Secretary of Defense."

"There was doubt among some Navy officers as to the feasibility of Navy assuming sole responsibility for Defense sea transportation."

Vice Adm. William M. Callaghan

"At one time I recall we had more than 600 ships under command control, and MSC was doing more than $600 million worth of business a year."

Vice Adm. Francis C. Denebrink

"Tired of endless bickering and studies that attended certain unification measures, he issued a dictum in August or September of 1949 requiring that an order be placed in his hands within 24 hours assigning to the Navy responsibility for providing sea transportation for the three services. With that Military Sea Transportation Service was established." The title was changed to Military Sealift Command in 1970.

What was Admiral Callaghan's biggest challenge? "There were many," he recalled. "Aside from the monumental problems of providing shipping to meet requirements of the Korean War,

there were equally serious internal problems." Some he cited were staffing the new organization; implementing special accounting procedures; setting up legal, personnel and maintenance sections and working closely with the Army to transfer to MSTS certain personnel and the many ships under Army control.

"Assistant Secretary of Defense Wilfred McNeil was a tower of strength to us in those days," Admiral Callaghan said. "He was sympathetic and helpful in the sticky question of how many military personnel billets the Army was required to transfer to the Navy as a result of the new arrangement — and was enormously helpful in getting Congress to approve the appropriation procedures and methods that enabled MSTS to operate as an autonomous organization."

After his retirement from the Navy in 1957, Admiral Callaghan became vice president of Marine Transport Lines and for six years was chairman of the National Academy of Science's maritime cargo transportation conference.

Vice Adm. Francis C. Denebrink, who commanded MSC until July 1956, feels the pullout from Korea was one of the most important and difficult tasks he faced during his tenure. "It was a very big job," Admiral Denebrink said. "At one time I recall we had more than 600 ships under command control, and MSC was doing more than $600 million worth of business a year."

"A difficult task was supporting construction of Thule Air Base in Greenland when there were no helicopters to spot icebergs."

Vice Adm. John M. Will

Perhaps his most personally satisfying challenge was serving as commander of a task force of 126 cargo ships dispatched to the Arctic to deliver equipment for the Distant Early Warning Line radar stations. "There were more than 100 sites we had to stop at, and we only had from July 1 to September 1, 1955 to do it."

Vice Adm. Roy M. Gano

Despite frequent blockage by ice-clogged waters, the ships reached their destinations but could not get out by September 1. "On that date," the admiral said, "there were 44 ships locked in the ice." Luckily, a storm in the Gulf of Alaska created a wind that blew the ice off the coast of Alaska. With the help of five icebreakers, the ships were freed.

"Of those 44 ships, only four returned undamaged," Admiral Denebrink recalls. "The people involved in the operation did an exceptional job," he said. For his role, Admiral Denebrink was awarded the Distinguished Service Medal.

After his retirement from the Navy in 1956, Admiral Denebrink became vice president of Matson Lines followed by four years with States Steamship Co. Now completely retired from the business world, Admiral Denebrink spends much of his time playing golf.

Vice Adm. John M. Will began his association with MSC on Nov. 1, 1949, when he was ordered to set up MSC operations in Europe. He established a European headquarters office in Heidelberg, Germany. In May 1951 he returned to the United States as commander of MSC, Atlantic in Brooklyn, N.Y., a position he held until October 1953.

After serving as director of military and reserve personnel policy in the office of the assistant secretary of defense, Admiral Will became MSC

commander in 1956, directing the worldwide command until June 1959.

Admiral Will cites several difficult tasks that he faced during his tenure as commander, among them support of Air Force construction of Thule Air Base in Greenland.

"There were no helicopters to spot icebergs in those days," the admiral said. "Sometimes we had to wait as long as two weeks to get into the Davis Straight because it was frozen over. But we did it."

The admiral also recalls changes which followed the phase-out of Korean operations. Many chartered ships were returned to their operators and government vessels put back into the National Defense Reserve Fleet.

While Admiral Will was at the MSC helm, thousands of Hungarian refugees were transported from Germany to the United States aboard command troopships under the auspices of the Refugee Relief Act of 1953.

Admiral Will retired on June 30, 1959 and later became president of American Export Lines, a position he held until January 1972. He then worked as a consultant for the Maritime Assn. of New York and currently is vice president of Arthur Tickle EngineeringWorks, Inc. in Brooklyn, N.Y.

Before assuming command of MSC in June 1959, the late Vice Adm. Roy A. Gano was both MSC deputy commander and commander of MSC, Atlantic. While Admiral Gano was commander, MSC's mission expanded from movement of cargo for Department of Defense to include operation of ships in support of space and oceanographic research. Throughout his tour as commander, Admiral Gano emphasized the rise of Soviet seapower and was a strong advocate of the U.S. Merchant Marine, emphasizing its vital role in national defense.

Admiral Gano retired from the Navy in 1963 and devoted himself to the United Seamen's Service, an organization he was president of from 1961 until his death on Jan. 31, 1971. He led the fight for passage of the United Seamen's Service Act, signed into law on Dec. 31, 1970.

In 1972 MSC established a special safety award bearing his name. Vice Adm. Roy A. Gano trophies are given annually to USNS ships achieving the greatest improvement in areas regularly evaluated.

MSC's fifth commander was Vice Adm. Glynn R. Donaho. He succeeded Admiral Gano on June 30, 1964, serving until March 30, 1967. Admiral Donaho feels the tremendous increase in sealift deliveries to support the buildup of Vietnam forces was the most significant challenge he faced.

Although a long and arduous task for the command, Admiral Donaho said that, as a whole, it was accomplished with few major problems. "The cooperation between the shipping companies and MSC was outstanding," he said.

Admiral Donaho retired from the Navy in 1967, leaving what he described as "one of my favorite commands," to serve as president of Oetiker, Inc., a Swiss-owned company with headquarters in Newark, N.J. Now fully retired, Admiral Donaho travels extensively, spending about six months each year in Mexico.

A steady reader of Sealift magazine, Admiral Donaho keeps up with what is going on at MSC. "It seems as if the only thing different is the ships. MSC has the same mission, and is still meeting its challenges."

Medal of Honor winner Vice Adm. Lawson P. Ramage succeeded Admiral Donaho on March 31, 1967, heading the command until March 31, 1970. Admiral Ramage recently said the most important change that took place during his command was implementation of the competitive bidding system.

"It seems as if the only thing different is the ships. MSC has the same mission, and is still meeting its challenges."

Vice Adm. Glynn R. Donaho

"It really changed the shipping companies' dealings with MSC," Admiral Ramage said, pointing out that before competitive bidding system was adopted, rates were negotiated between

MSC and associations representing the shipping companies with uniform rates for various commodities established for certain trade routes. "Once competitive bidding came into the picture," he said, "MSC negotiated with the shipping companies, causing them to compete against one another."

Admiral Ramage also recalled the removal of more than 170 ships from the National Defense

"Once competitive bidding came into the picture, MSC negotiated with the shipping companies, causing them to compete against one another."

Vice Adm. Lawson P. Ramage

Reserve Fleet to deliver cargo to Vietnam as a major event during his period of MSC leadership. During Admiral Ramage's tour as commander MSC signed a build and charter contract for services of five tankers. One, USNS Spirit of Liberty, was christened by Mrs. Ramage in June 1968. Since his retirement from the Navy, Admiral Ramage has been a consultant for Westinghouse Corp., Northrop Corp., and several other firms.

A golf enthusiast, Admiral Ramage played in the command's annual golf tournament last June.

Immediate predecessor to the present MSC commander was Vice Admiral Arthur R. Gralla. Formerly deputy commander under Admiral Gano, Admiral Gralla took command of MSC in March 1970 and was commander through November 1971.

Since retirement, he has kept busy as a management and technical consultant for Honeywell, Inc.; Goodyear Aerospace Corp.; Northern Ordnance Division of FMC Corp.; Lockheed Aircraft Corp.; and General Research Corp. Admiral Gralla also is a member of the board of directors of UV Industries.

Most personally satisfying of his many contributions to MSC, Admiral Gralla feels, was his role in 1971 Congressional hearings relating to a proposed Defense reorganization which would have shifted major sealift functions from MSC to the Army. A special subcommittee of the House Armed Services Committee recommended that sealift functions be retained by the Navy — and Military Sealift Command.

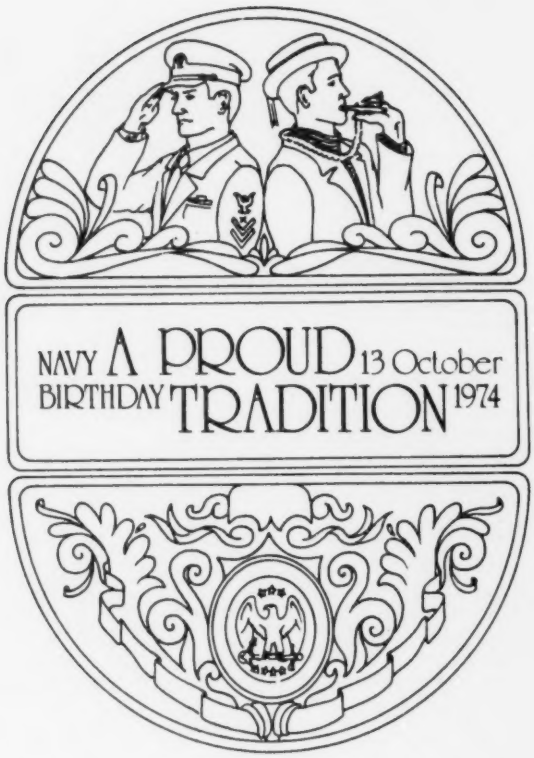
In 25 years, MSC has had eight commanders, including Rear Admiral John D. Chase, who now heads the command. During the life of the command, its men and ships have been involved in crises in Berlin, Korea, Lebanon, and Vietnam,

"Most personally gratifying was my role in 1971 Congressional hearings that proposed a shift of major sealift functions from MSC to the Army."

Vice Adm. Arthur R. Gralla

among others. They have supported Department of Defense units effectively and efficiently, have been involved in exploration of space and the oceans, and have played a major role in many humanitarian efforts.

The success of those many activities, and the reputation MSC enjoys, are in a large measure the result of skilled, innovative and courageous leadership by the men who have commanded — and have left their mark on — Military Sealift Command. ⚓



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